

Before the
Federal Communications Commission
Washington, DC 20554

In the matter of:

Focused Comment on E-Rate Modernization

Schools and Libraries Universal Service
Support Mechanism

Adopted: March 6th, 2014

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COMMENTS OF E-RATE PROVIDER SERVICES, LLC.

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Introduction

E-rate Provider Services respectfully submits these comments in response to the Federal Communications Commission's ("Commission" or "FCC") Public Notice regarding the Wireline Competition Bureau's Request for Focused Comment on E-Rate Modernization for the Schools and Libraries Universal Service Mechanism, commonly known as the E-Rate Program. E-rate Provider Services is a consulting firm serving Service Providers in the E-rate program. E-rate Provider Services' purpose is to assist E-rate Service Providers in navigating the complexities of the program, providing sales and compliance assistance, cost allocation services, bid and proposal review, and staff training.

Program Purpose

E-Rate Provider Services begins its comments with the assertion that in large part, the E-Rate Program is doing what it has been tasked to do, which is, provide voice, video, and data networks to schools and libraries, and connect them to the Internet and to each other. Listening to the Senate Commerce Committee hearing on July 17, 2013, and the FCC Open Commission Meeting on July 19, 2013, it was striking that a significant portion of the conversation was directed at refocusing the program on providing higher speed broadband connectivity. E-Rate Provider Services notes that it is not the exterior, i.e. schools/library to "outside world" part that is dysfunctional, it is the connectivity within the building itself.

E-Rate Provider Services notes that any applicant can go through the process and receive a discount on a high-bandwidth connection to the outside world, and within reason, they can receive any speed connection they require. There has never been an application for Internet bandwidth denied for a lack of funding in the program, and yet many applicants self-report that their Internet bandwidth is not sufficient. Assuming it is available to them, E-Rate Provider Services believes there can be only two reasons for this: either they cannot afford it, or they do not want it.

In the former case, the economics of dwindling public sector budgets force harsh choices, and the benefit of a faster Internet connection may not be readily apparent.

In the latter case, an applicant may judge that they do not have the ancillary resources to take full advantage of the faster connection, be it untrained teachers, a lack of connected devices, or a curriculum that does not emphasize online resources.

E-Rate Provider Services comments that in the above cases, the program is working exactly as intended. Applicants are tasked with performing a self-assessment and making a "bona-fide" request, and audits are performed to ensure that applicants are compliant. Regarding external ("building to Internet") connectivity, E-Rate Provider Services comments that there are no structural changes to the program that will increase penetration or bandwidth if the applicant judges they cannot afford it, or cannot effectively use it, and the program should not encourage applicants to "over buy."

E-Rate Provider Services comments that it is the internal (“in building”) bandwidth that the program has not addressed effectively. Every year, many requests for internal connections go unfunded, to the detriment of the program, and with inadequate internal networks, applicants cannot take advantage of higher-speed external connectivity. USAC audits check for internal networks sufficient to take advantage of higher external bandwidth, and enough devices to utilize it. In short, mismatched internal-external capacity is cause for an audit finding, and potential funds recovery.

Funding Voice Services

The “focused comment” asks whether voice services should be eliminated, and proposes two variations on this: eliminating legacy voice services but leaving advanced voice services, such as hosted VoIP, or eliminating ALL voice services. E-Rate Provider Services supports eliminating legacy voice services, but strongly opposes eliminating advanced voice services, such as hosted VoIP.

In the beginning of the program, schools would receive discounts on their voice services, and often use the funds saved to implement their larger technology projects, whether it was an in-building cabling project, new voice system, or computers. These projects were enabled by the cost-savings generated from the discount on voice services.

E-Rate Provider Services predicts that eliminating all voice services would have the reverse effect, causing schools and libraries to dramatically scale back their contracted technology services, which is diametrically opposed to the stated goals of the President, and the Commission. Bluntly put, voice services are not optional for a school district; they are considered “life safety” services, and will be funded before any other technology services.

Even eliminating legacy voice services will cause districts temporary hardship, but continuing to fund advanced voice services will provide a migration path, while continuing to encourage the adoption of the advanced communications technologies of which both the Commission and the President have spoken.

Priority 1 Managed Wireless

Priority 1 Managed Wireless is a provider-owned service that delivers 802.11x service into a school or library by installing cabling, wireless access points, and requisite network electronics. All management of the service is done by the provider, and the applicant does not take title of the equipment, with the exception of the horizontal data cabling, which would be “abandoned in place” at the end of the term, since used cabling has no value.

To effect this change, it would require a waiver for the Tennessee Test, because in effect this would be the applicant’s local area network; it would no longer be severable and distinct, as required for all current Priority 1 service.

The strongest argument for this change is the overwhelming cost-effectiveness of the solution. Right now, an applicant can purchase a cellular data plan for a wireless device for approximately \$40.00 per student per month, not including any data overage charges, if applicable. Simply put, \$480.00 per student per year is not cost-effective, especially when compared to the \$25.00 to \$30.00 per student per YEAR estimated cost range for the Priority 1 Managed Wireless solution.

E-Rate Provider Services believes that if this technology becomes eligible as a Priority 1 service, it could change the landscape of K12 technology infrastructure by providing a highly cost-effective, high-bandwidth method to bring in-building networking to every school and every library. At one eighth the cost, eight times as many students could receive in-building connectivity.

In sum, E-Rate Provider Services believes that this offering is a potential “game changer” for the program, and has the capability of solving one of the most daunting challenges posed in the NPRM, which is, how to bring high-speed wireless connectivity to devices within the school.

The Priority System

E-Rate Provider Services comments that the current system of assigning Priority by service type, that is, some services are classified as Priority 1 and some are classified as Priority 2, stifles competition, and ironically in some cases drives costs UP, rather than down.

Consider the following competing technologies for providing in-building wireless connectivity:

Cellular data

Cellular data (4G, LTE) connects mobile devices and in some cases, laptops and desktops, to the internet using the cell phone technology. It is classified as a Priority 1 service, and has the advantage of mobility, meaning, it can be used at home with the existing cellular infrastructure, although at-home use is not eligible under E-Rate rules and must be cost-allocated out. This service costs \$40.00 per user per month, for a cost range of \$480.00 per year per student, half of which (approximately) would be eligible (the in-school portion) for discount.

Applicant-Owned Wireless Access Points (WAPs)

This design requires the applicant to purchase and install WAPs, horizontal cabling, and network electronics. An in-building WiFi solution would provide no (ineligible) home connectivity, but would be a fraction of the cost. This is a Priority 2 solution.

Provider-Owned Managed WiFi

This solution, detailed above, involves contracting with a provider to install WAPs that remain provider-owned and managed, along with the network electronics and requisite cabling, at a cost range of \$25.00 to \$30.00 per student per year. This solution is not currently eligible for E-Rate funding, as it violates the Tennessee Test for on-premises equipment.

Comparison

For comparison, if a school with 1000 students wishes to provide in-building wireless connectivity, a Provider-Owned Managed WiFi solution would cost \$25,000.00 to \$30,000 per year, but is not eligible. The Priority 2 solution would cost, one time, approximately \$75,000.00 to \$100,000.00, but would not get funded because there is insufficient funding in the program to

fund Priority 2 applications, but the most expensive solution, at a yearly eligible cost of \$240,000.00, would receive funding.

Summary

This a stark example of the types of counterproductive choices forced upon applicants, and E-Rate Provider Services contends that the rules are skewing the competitive landscape. If the rules were changed to allow applicants to evaluate different technologies fairly, without regard for their E-Rate Priority status, E-Rate Provider Services comments that applicants would make the best choice for their needs, not the best choice for which they will receive funding. E-Rate Provider Services cannot help but conclude that the priority system is skewing the market, preventing innovation, allowing an uneven “playing field”, and driving costs up. E-Rate Provider Services believes that this accounts for a great deal of the growth in aggregate Priority 1 requests, and concludes that the artificial Priority 1 / Priority 2 divide, by restricting cost-effective choices, is serving neither applicants nor the program.

Eligibility – Products and Services

E-Rate Provider Services comments that applicants need voice, video, and data networks with the following characteristics, at the simplest level:

- Speed – they must be fast enough to deliver robust services
- Reliability – they must be available when needed
- Security – applicants maintain sensitive staff and student information
- Robust – applicants require more than bandwidth; they need services and content.

In addition, services are deemed eligible if they are both cost-effective and serve an “educational purpose”. It is with these characteristics in mind that E-Rate Provider Services comments on the eligibility of the following products:

Cellular Phone Service and Cellular Data Plans

Cell phone service should be allowed for administrators and mobile employees only. Cellular data plans should be disallowed altogether. They are simply **never** cost-effective, and E-Rate Provider Services urges the FCC to maintain focus for services that take place on school grounds. Wireless Access Points, whether applicant owned or provider owned, are an exponentially more cost-effective solution.

Data Security

The FCC should reverse its longstanding prohibition on funding advanced firewall services, including virus protection. Simply put, if the network is not secure, it doesn’t work. Basic firewalls, while better than nothing, are insufficient to protect networks from threats from within and without. The market for hardware-based line-speed firewalls has matured so that the price

delta between a basic firewall and a firewall with advanced featured is small, and the benefits of prevention, rather than repair, are clear.

Basic Telephone Service, Legacy Services, and Hardware PBXs

E-Rate Provider Services agrees with SECA that POTS, Centrex, hardware PBXs and other legacy voice services should be discontinued. The purpose of the program is to bring advanced services to schools and libraries; POTS no longer qualifies.

E-Rate Provider Services further comments that the FCC should, without hesitation, adjust the Eligible Services List to encourage the adoption of current technologies, which means discouraging the use of antiquated technologies.

Advanced Voice Services

E-Rate Provider Services comments that there is a marked difference between cloud-based, hosted Voice over IP systems, and legacy voice system, detailed above. Hosted VoIP is an advanced telecommunications service, and should be fully funded. Aside from providing highly functional voice communications, many soft switch manufacturers, such as Broadsoft, provide integrated videoconferencing functionality.

Web Hosting, Email, and Associated Services

E-Rate Provider Services comments that not only are web hosting, email, and associated services a very small percentage of the overall program, they are excellent educational tools, and frankly the only services funded by the program that excite educators. E-Rate Provider Services comments that although web hosting and email services lie outside the core mission of the E-Rate Program, removing them from the ESL will have negligible financial impact, and cautions the FCC against defunding some of the core tools that directly involve the teachers who need to use the technology. Teacher involvement will drive schools toward the higher bandwidth goals.

Eligible Services - Summary

In summary form, E-Rate Provider Services recommends paring down the ESL to explicitly include the following:

In-Building

- WiFi (Provider-Owned or Applicant-Owned)
- DNS/DHCP/ Firewall
- Network Electronics – Switches & Routers
- Cabling for WAPs

External Connectivity and Services

- Building to Building Connectivity
- Building to Internet Connectivity
- Cloud-Based Voice
- Cloud-Based Video
- Web Hosting and Hosted Email
- Basic Cell Phones for Administrators and Mobile Employees Only

Summary

E-Rate Provider Services appreciates the opportunity to respond to the questions raised in the NPRM, and is pleased to provide input. E-Rate Provider Services has prepared its comments emphasizing program simplicity, encouraging fairness and competition, and advocating structural changes to create a more sustainable and scalable framework. In response to the FCC's call for prioritization, E-Rate Provider Services is pleased to supply the following summary of critical points.

Funding

As we approach Funding Year 2014, the E-Rate Program is significantly underfunded. Unless more funding is found, Priority 2 applications will never be funded again, and soon Priority 1 will see denials for threshold or proration. There are four things which can alter this (separately or together): an increase in the funding cap, an imposed cap on Priority 1 funds, a "per applicant" cap, and the elimination of high-cost Priority 1 services, such as cellular data plans, and legacy services, such as basic voice, paging, and PBXs. E-Rate Provider Services favors a combination of all four components.

Regarding the "per applicant" funding cap, E-Rate Provider Services comments that there are several proposals before the Commission, including Funds for Learning's "per pupil" proposal. While E-Rate Provider Services slightly favors the "per building" model, the "per pupil" model is an excellent framework and will accomplish the goal of ensuring that all schools receive some funding, and can be expanded or contracted as the program decides with no further systemic revision.

Regulatory Reclassification

E-Rate Provider Services recommends eliminating the regulatory requirements on telecommunications services, as was proposed in the NPRM of 2013, along with exempting E-Rate applicants from having to pay USF fees (and providers from having to collect them). Ensure that all providers, telecom and non-telecom, compete on an even playing field.

Funding Voice Services

E-Rate Provider Services predicts that defunding all voice services will have a disastrous effect on the program, and urges the Commission to continue to fund advanced voice services, and discontinue funding legacy voice services.

Priority 1 Managed Wireless

In E-Rate Provider Services' opinion, this is the most cost-effective method to deliver high-speed in-building networking currently available.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "B Richter".

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